

ABSTRACT OF THE DISCLOSURE

A wood-turning lathe includes a spindle and a drive shaft
journalled to a headstock housing. A motor is mounted in the
headstock housing, and includes a rotor. A torque converter
5 includes a first wheel that co-axially surrounds the spindle
and that is securely coupled to the rotor, a second wheel
mounted securely on the drive shaft, and a belt trained on the
first and second wheels, thereby increasing torque of the drive
shaft. A speed change device includes a first pulley unit
10 mounted on the drive shaft and defining a first belt-engaging
surface, a second pulley unit mounted on the spindle and
defining a second belt-engaging surface, and a non-elastic
belt interconnecting the first and second pulley units and
frictionally contacting the first and second belt-engaging
15 surfaces.